

530842

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
22 April 2004 (22.04.2004)

PCT

(10) International Publication Number  
**WO 2004/033974 A1**

- (51) International Patent Classification<sup>7</sup>: **F25D 23/02** (74) Agent: KIM, Myoung Sub; 4th Floor, HANJOO Bldg., 647, Yoksam-dong,, Kangnam-gu,, Seoul 135-080 (KR).
- (21) International Application Number:  
**PCT/KR2003/000017**
- (22) International Filing Date: 6 January 2003 (06.01.2003)
- (25) Filing Language: English (84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR).
- (26) Publication Language: English
- (30) Priority Data:  
20-2002-0030320 10 October 2002 (10.10.2002) KR  
Published:  
— with international search report
- (71) Applicant and  
(72) Inventor: JUN, Young Sig [KR/KR]; 5-306 Woosung-Apartment, 872-20 Bonoh-Dong, Ansan-si, Kyungki-Do 425-180 (KR).
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## (54) Title: PROFILE GASKET AND COMPOSITION THEREOF

Table 1 : (Test Method: LG(61)-E-8020)

Test Item	Standard	Result	Note
Hardness	67-77	71	Shore A
Tensile Strength	0.8Kg/cm <sup>2</sup>	0.75-0.85	
Elongation	200min	650	
Heat Loss	3.0Max	0.76	
UV Resistance Test	3.5Max	2.74	Delta E
Chemical Resistance	Unchanged	Unchanged	Wax, Silicone x 24h
Erodibility for Contaminated Film	No Fuzz	Unchanged	
Erodibility for Door Line applied Resin	No Contamination/ Swelling/ Softening/ Discoloration	Unchanged	
Weather Resistance Test	No Yellowing/ Stripping	Unchanged	
Oil Resistance Test	No Hardening/ Softening/ Fuzz/ Discoloration	Unchanged	
Hot/Cold Cycling Test	No Deterioration of Cross-section	Unchanged	
Antibacterial Test	5 or more Clear Zones, No Mold-Growth on Specimen	Unchanged	
Lead Content	100ppm or less	Nil	
Cadmium Content	100ppm or less	Nil	
Dibutyltin Content	100ppm or less	Nil	
Cresolacidester Content	1000ppm or less	Nil	
Heavy-Metal Content	1 or less based on Lead	Nil	
Residue remaining after Evaporation	30 or less	Nil	

(57) Abstract: Disclosed is a profile gasket comprising a locking part below a gasket base for mounting the gasket to a target body such as a refrigerator door, a contact sealing part for sealing the junction of the refrigerator door with the edge of a refrigerator cabinet and an elastic support part for elastically supporting the contact sealing part to the gasket base, molded from a thermoplastic resin. There is also provided a profile gasket composition as the thermoplastic resin, including, based on parts by weight, 8-15 parts of a dynamically crosslinked mixture or blended elastomer of a synthetic rubber and polypropylene, 10-20 parts of a metallocene-based olefin elastomer, 2.13-10.3 parts of polymethylmethacrylate, 2-5 parts of ethyleneacrylateethyl copolymer, 0.6-6 parts of a hydrogen-added thermoplastic resin, and 2-10 parts of a mixture of thermoplastic urethane and a hydrogen-added resin, 20-60 parts of a filler and 10-30 parts of a plasticizer.

WO 2004/033974 A1